CALIFORNIA STATE DEPARTMENT OF PUBLIC HEALTH
WALTER M. DICKIE, M.D., Director

Weekly Bulletin

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The Sanitation of Bathing Beaches

The season of outdoor bathing and swimming prompts the United States Public Health Service to call attention to certain dangers to health to which the bather or swimmer may expose himself. The physical benefit derived from wholesome exercise and recreation may be more than offset by illness contracted through exposure to infection unless the individual is sufficiently discriminating in the choice of his bathing place. In choosing a bathing place many people assume that protection is provided through the supervision of some proper official or sanitary authority. In many instances such supervision is either lacking entirely, or so inadequate that little real protection is afforded. The bather should familiarize himself with the general sanitary requirements for bathing places of various types and should satisfy himself that these requirements have been fulfilled before he decides on the selection of any particular body of water.

For the purpose of discussion from a sanitary standpoint, bathing places may be divided into three general classes, namely, (1) natural outdoor ponds, rivers, tidal waters, etc.; (2) outdoor pools partly natural and partly artificial in character; and (3) pools, either outdoor or indoor, which are entirely of artificial construction.

The chief danger to health to which bathers may be exposed is pollution of the water with excreta from the bodies of other persons. Such pollution may come from domestic sewage deposited in harbors or streams, or, in swimming pools, either natural or artificial, it may result from direct contamination of the water with the body discharges from the bathers themselves. The existence of pollution in the water of bathing places, while usually unavoidable to a certain extent and not of itself invariably dangerous, is of serious concern, because of potential danger—the ever present possibility that discharges from the human body may contain the germs of infectious diseases.

Two important precautions always should be observed in the choice of a bathing place—to ascertain, first, that the water, before use, is safe, and, second, that proper steps are taken, especially in ponds and pools, to insure that direct contamination by bathers is offset by dilution through the constant addition of large amounts of fresh water or by appropriate replacement and disinfection.

Before use, the water should be approximately the same bacteriological purity as drinking water, whether the bathing place be a stream, pond, or a pool. Under certain circumstances, as in a stream or pond, the water may have more turbidity or cloudiness than is allowable for drinking water without being at all dangerous.

Open waters in large streams, lakes, and bays are usually safe if there is no discharge of sewage nearby or above the bathing beach. There is an erroneous popular idea that the water in a stream will purify itself under all conditions in traveling over a certain distance. It is true that natural purification does take place in streams, but the distance which pollution will travel in a creek or river depends upon many things such as the amount of contamination compared to the volume of water in the stream and the rate of flow. Pollution will often travel farther in a rapidly flowing broken stream than in a slow flowing placid one. The best plan, when there is doubt as to the safeness of a water supply, is to seek the advice of the health authorities and depend upon bacteriological examination and a sanitary survey rather than upon haphazard opinion.

Especially dangerous is the practice of bathing off docks, wharves, and sea walls in the harbors of large cities. The waters about such places are usually grossly polluted with human excreta from sewers or boats. Such waters are likely at any time to contain the germs of typhoid fever and dysentery.

CLAMS PLACED UNDER QUARANTINE WITH MUSSELS

Because of the appearance of many cases of poisoning in persons who had consumed mussels gathered along the coast of northern California early in July, a quarantine was placed upon these shellfish under the provision of which their sale or offering for sale was prohibited. This quarantine originally included only San Mateo County, but later was extended so as to include all of the territory from Monterey County to the Oregon line. On August 3 and 4, 13 cases of mussel poisoning, with one death, and six cases of clam poisoning, three of which were fatal, were reported to the State Department of Public Health. This was the first time that cases of clam poisoning had been brought to the attention of this department. These clams were gathered along the coast line of Marin and Sonoma counties and San Mateo County was included later because of the fact that poisonous shellfish of this order were gathered on the shores of that county. Specimens of different varieties (quahog, Washington and horse-neck) were collected and submitted to the laboratory of The Hooper Foundation for Medical Research, University of California, for examination. These were found to be highly toxic but specimens of abalones and oysters which were also submitted for examination did not show any toxic condition.

It is apparent that during the height of the summer season mussels and clams may be highly poisonous. This condition gradually abates until the beginning of winter when they do not show any signs of poison. With the beginning of spring, however, the toxic condition starts, reaching its peak again during the height of midsummer.

DYSENTERY OUTBREAK IN SAN QUENTIN PRISON

A total of 551 cases of dysentery appeared in San Quentin Prison during the first week of August. At the request of the resident physician, the State Department of Public Health assisted in establishing a diagnosis and in making bacteriological examinations. It is apparent that this epidemic was due to a food infection which had its source in a patient or a carrier who was suffering from this acute transmissible infectious disease.

This type of dysentery has appeared in the prisoners' mess during the summer months covering a period of four successive years. In 1926 a dysentery carrier was found among the food handlers of the mess. It has been recommended that food handlers in the prison should be examined before admittance to that service and only those who are found free from typhoid, paratyphoid or dysentery bacilli be allowed to handle food stuffs. The resident physician has instituted a plan for the establishment of this procedure. All entering prisoners are given typhoid vaccine upon admission, but as yet there has not been developed a satisfactory means of immunization against bacillary dysentery.

TRUCKEE RIVER RESTORED TO PURITY

Complaints have been made for many years of the pollution of the Truckee River with industrial wastes from a paper mill. This has caused the arousal of interest among residents of the state of Nevada, into which the Truckee River flows. The Bureau of Sanitary Engineering of the State Department of Public Health, acting in cooperation with the state of Nevada, has now been able to eliminate this nuisance entirely through the institution of the chemical treatment of paper mill waste. This procedure has not only restored the river to its original state of purity but it has enabled the paper mill to extract valuable by-products from the waste.

Similar work can be done in the reclamation of many California streams which are now heavily polluted with industrial waste. The work done on the Truckee River is a clear demonstration of the possibilities that lie in procedures of this type.

Intelligence is the most potent factor that can be directed against disease.—*F. M. Pottenger.*

The layman can gain a fair idea of the manner in which tuberculosis affects the tissues by noting the mould seen in bread and cheese.—*F. M. Pottenger.*

MOSQUITO CONTROL MEASURES INSTITUTED IN SOUTHERN CALIFORNIA

The anopheles mosquito, which transmits malaria, fortunately is not found in southern California, but other types of mosquitoes which exist here may inflict painful wounds which are likely to become infected, causing considerable personal discomfort, if not acute illness. Wherever there is standing water mosquitoes may breed. The variety that is commonly found in the salt marshes is particularly ferocious, and beach parties and bathing parties are subjected to great discomfort through the attacks of these insects.

Four mosquito abatement districts are in process of organization in southern California at the present time. These are located in the vicinity of Venice, in Orange County, San Diego and Riverside. Under the Mosquito Abatement District Act, funds are derived through a tax levy based upon assessed valuations of property included within the district. The operations of a mosquito abatement district consist mainly in the elimination of all places where standing water may collect and in the destruction of mosquitoes while they are in the larval stage. The direct activities are drainage of bodies of standing water by means of ditching; filling depressions so as to prevent formation of pools of water; oiling pools, where drainage is not feasible, for the purpose of destroying mosquito larvae; the poisoning of mosquito larva by means of insecticides; and the implantation of top minnows where none of the methods, as outlined, may be feasible.

The top minnow used for this purpose in California is Gambusia Affinis, which is a native of the southern and eastern states. The State Department of Public Health imported 600 of these fish into California in 1922 and it is estimated that there are now 50 or 60 millions of these mosquito destroyers in California waters. The department maintains 30 hatcheries whence mosquito abatement districts throughout the state receive their stocks for mosquito control work. This mosquito fish is viviparous, the young being born directly from the body of the mother fish. The male of the tribe is from three-quarters of an inch to one inch long, and the female grows to a length of 1½ to 2 inches. They are extremely tolerant of adverse conditions and will even live in brackish water, but not in salt water. They constitute one of the most valuable allies now being used throughout California in the control of mosquitoes.

With the addition of four new mosquito abatement districts in California, the total number to be operating within the state will rise to more than twenty. These districts have proved their value in the control of these pestiferous insects, which constitute a distinct menace to health and comfort.

UNWHOLESOME WALNUT MEATS REMOVED FROM MARKET

The Bureau of Food and Drugs of the State Department of Public Health has cooperated with local health departments of southern California in eliminating from the markets walnut meats that are wormy, rancid, mouldy, and otherwise unsuitable for human consumption. Half a million pounds of such walnuts have been converted into nut oil during the past six months. The residue, after the extraction of the oil, is used for commercial feeding stuffs. As a result of this activity, consumers may be reasonably assured of securing wholesome walnut meats upon any of the local markets. This extends to bakeries, candy factories, soda fountains, and other places where ground or whole walnut meats are served.

The bureau received the full cooperation of the Los Angeles County Bureau of Food and Sanitation and the Los Angeles City Bureau of Food and Sanitation in carrying on this work. Firms and individuals in the business of packing walnuts were given full information concerning the food law, and, wherever possible, privileges were given to recondition such nut products as could be reconditioned. The work was carried even into the cold storage plants and warehouses, in order that the public might be assured of securing only wholesome nut products.

CLAM QUARANTINE ORDER

The quarantine of all clams from Marin, Sonoma and San Mateo counties is hereby established. The quarantine has been extended so as to include San Mateo County because clams north of Half Moon Bay have been found toxic. All health officers and food inspectors are hereby instructed, until further notice, to enforce the provisions of this quarantine and to prohibit the sale or offering for sale of clams gathered within the district specified in this order.

(Signed) WALTER M. DICKIE, M.D.,
Director Department of
Public Health.

In order to comprehend tuberculosis it is necessary for one to think in periods of months and years.—*F. M. Pottenger.*

Death is caused by the reaction in spite of the fact that it is a part of the defensive mechanism of the body.—*F. M. Pottenger.*

MORBIDITY*

Diphtheria.

32 cases of diphtheria have been reported, as follows: Alameda 1, Oakland 4, Fresno 1, Los Angeles County 1, Long Beach 2, Los Angeles 9, Merced 1, Anaheim 1, San Diego 1, San Francisco 6, Santa Clara County 3, Palo Alto 2.

Scarlet Fever.

76 cases of scarlet fever have been reported, as follows: Alameda County 4, Alameda 1, Oakland 2, Jackson 1, Richmond 1, Fresno County 5, Fresno 1, Los Angeles County 8, Burbank 1, El Monte 1, Long Beach 2, Los Angeles 10, Montebello 1, Monterey Park 2, Merced 1, Lincoln 1, Sacramento 5, San Diego 1, San Francisco 6, San Joaquin County 3, Lodi 3, Stockton 3, Santa Clara County 3, San Jose 9, Santa Cruz County 1.

Measles.

17 cases of measles have been reported, as follows: Oakland 2, Fresno 1, Los Angeles County 2, Huntington Park 2, Los Angeles 3, King City 1, Tustin 2, San Francisco 2, San Joaquin County 1, Ventura County 1.

Smallpox.

31 cases of smallpox have been reported, as follows: Inyo County 1, Long Beach 1, Los Angeles 1, Riverside 3, San Francisco 3, San Luis Obispo County 20, San Luis Obispo 1, Santa Cruz 1.

Typhoid Fever.

17 cases of typhoid fever have been reported, as follows: Fresno County 1, Los Angeles County 1, Los Angeles 5, Riverside 1, San Francisco 2, San Joaquin County 1, Santa Cruz County 1, Rio Vista 1, Tehama County 2, California 2.**

Whooping Cough.

140 cases of whooping cough have been reported, as follows: Berkeley 8, Oakland 6, El Cerrito 2, Fresno County 3, Los Angeles County 16, Alhambra 6, Burbank 1, Claremont 1, Compton 3, Glendale 1, Long Beach 2, Los Angeles 27, Monrovia 3, San Gabriel 1, Maywood 1, Anaheim 4, Brea 1, Riverside 1, Sacramento 7, San Diego 13, San Francisco 14, San Joaquin County 1, Paso Robles 2, San Luis Obispo 1, Santa Clara County 5, San Jose 1, Etna 2, Benicia 1, Sutter County 2, Tulare County 1, Ventura County 3.

Meningitis (Epidemic).

5 cases of epidemic meningitis have been reported, as follows: Oakland 2, Los Angeles County 1, Los Angeles 1, San Francisco 1.

Poliomyelitis.

4 cases of poliomyelitis have been reported, as follows: Fresno County 1, Glendale 1, Los Angeles 1, Riverside County 1.

Encephalitis (Epidemic).

2 cases of epidemic encephalitis have been reported, as follows: San Francisco 1, Shasta County 1.

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* From reports received on August 12th and 13th for week ending August 10th.

** Cases charged to "California" represent patients ill before entering the state or those who contracted their illness traveling about the state throughout the incubation period of the disease. These cases are not chargeable to any one locality.

COMMUNICABLE DISEASE REPORTS

Disease	1929				1928			
	Week ending			Reports for week ending Aug. 10 received by Aug. 13	Week ending			Reports for week ending Aug. 11 received by Aug. 14
	July 20	July 27	Aug. 3		July 21	July 28	Aug. 4	
Actinomycosis	0	0	2	0	1	1	0	0
Chickenpox	83	66	56	39	92	62	48	33
Coccidioidal Granuloma	2	3	0	0	0	1	1	1
Dengue	0	0	1	0	0	0	0	0
Diphtheria	39	34	49	32	52	51	55	56
Dysentery (Amoebic)	0	0	3	0	0	0	0	1
Dysentery (Bacillary)	8	0	8	556	2	0	1	1
Encephalitis (Epidemic)	3	2	4	2	1	1	0	1
Erysipelas	11	12	15	8	10	6	9	25
Food Poisoning	41	1	20	0	1	0	2	5
German Measles	17	4	5	5	25	23	16	17
Gonococcus Infection	135	93	116	92	134	194	93	112
Hookworm	0	0	0	0	1	0	0	0
Influenza	5	7	14	8	6	12	10	4
Jaundice (Epidemic)	0	0	1	0	0	0	0	0
Leprosy	0	0	1	0	0	0	0	1
Malaria	2	3	6	5	1	0	3	1
Measles	44	57	35	17	24	21	20	11
Meningitis (Epidemic)	15	17	9	5	3	6	4	2
Mumps	137	109	134	89	60	41	68	59
Ophthalmia Neonatorum	1	0	0	0	0	0	0	1
Paratyphoid Fever	2	0	0	1	6	3	0	1
Pellagra	2	0	2	0	2	6	1	1
Plague	0	0	0	0	0	0	1	0
Pneumonia (Lobar)	34	23	70	23	23	66	27	29
Poliomyelitis	6	4	1	4	1	7	7	4
Rabies (Animal)	21	7	17	7	6	18	7	18
Scarlet Fever	100	108	70	76	71	63	62	37
Smallpox	27	27	12	31	24	17	10	13
Syphilis	131	139	261	117	125	251	146	183
Tetanus	1	3	2	2	5	4	3	3
Trachoma	2	1	1	2	2	0	1	0
Tularemia	0	2	0	0	0	1	0	0
Tuberculosis	177	221	210	172	227	237	209	130
Typhoid Fever	13	27	36	17	11	15	18	22
Typhus Fever	0	0	1	0	0	0	0	0
Undulant Fever	0	3	1	0	0	0	0	0
Whooping Cough	164	176	173	140	230	228	175	137
Totals	1,223	1,149	1,336	1,450	1,146	1,335	997	909

Whooping cough continues in its seasonal prevalence. Very young children, specially, are entitled to full protection against this disease.

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Smallpox shows an increased prevalence.

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Most of the infectious respiratory diseases are at lowest ebb.

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Bacillary dysentery is exceedingly prevalent. An outbreak in San Quentin Prison is responsible for the large number of cases reported.

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